

# Some Public Attitudes about Health and the Environment

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Public opinion is formed both by long-term developments and—at the other extreme—by single unanticipated events. This suggests that readers of opinion survey findings should note field interviewing dates and further determine what the news media have been reporting about relevant developments and events. Personal health and the cost of health care are high on the public's agenda; this is an important backdrop to a review of public attitudes and priorities related to health and the environment. What about the environment? Americans increasingly believe that we are not spending enough on environmental protection and improvement. The public thinks of environmentalists in a favorable light, and a very sizeable minority believe they have too little influence—the same number who feel it's "about right." Our surveys have shown that the more people perceive an environmental threat to their safety, well-being and health, the more they will want regulation or industry action to meet the threat. High on the public's anxiety list are hazardous wastes (especially their disposal) and the transport and use of toxic materials in manufacturing and processing, industrial accidents involving the release of pollutants, the leakage of chemical waste into the soil, and the pollution of water and air from industrial sources. Our data support the assumption that for the foreseeable future these and certain other ecological dangers will be seen as serious by large majorities of Americans. For example, even the safety of drinking water has slowly become more questionable in the public's mind. The Title III SARA "right-to-know" legislation and resultant programs surely will change the levels of public awareness and concern regarding local environmental problems—probably upwards in some places and down in others.

## Public Opinion and Health Concerns

Before having a look at the public's level of awareness and attitudes on issues related to health and environment, a few observations are discussed. As we know, public opinion is formed both by long-term developments and by sudden, unanticipated events. When you read or hear an opinion poll finding, it helps to know as much as you can about the context in which the survey was conducted, the date of the interviewing, and what has been happening that is relevant to the issue or event under study. What has been discussed in the news media during the weeks or months prior to the survey, or as recently as days and hours before the survey was in the field is important in evaluating the poll. A few examples of relating individual events to changes in public opinion are discussed. All of the findings are from our continuing public opinion and the consumer behavior service, *Roper Reports*. Every 5 weeks we interview a representative sample of 2000 adults, 18 years of age and older, in their homes in face-to-face interviews. These are different people each time, and we ask them questions about many different things, not just environmentally related matters.

Let us observe a kind of backdrop of public attitudes

on health and the environment: What about health as a personal and public issue in this country? Early last year we showed people a list of ten items that could cause them to worry about having enough money to pay for them (Table 1). Over half cited a major concern about "being able to pay medical bills if you or someone in the family should have a serious and prolonged illness." This fear topped the list: more than worrying about enough retirement income, more than being able to pay ordinary medical bills, more than being able to pay off other debts—more than anything else on the list. Other research underlines this concern about catastrophic illness in this country.

Health care cost containment was not discussed heavily in the news until very recent years. We did not ask about the problems of catastrophic illness, until 1984, and then it came in as the number three problem out of 18 on the list for which people wanted a major Federal government effort to solve. (Table 2) By 1987, 70% of the public wanted a major effort to contain these costs.

Out of 13 Federal budget items, health was number four in the public's view that more should be spent than was proposed in President Reagan's January 1987 budget request. A significant majority felt this way. It may be no surprise to those of you who are professionally concerned with health issues that health and its costs are high on the general public's agenda.

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Table 1. Questionnaire regarding major concerns of the public that was distributed in poll.

Different people worry about different things when it comes to having enough money to pay for things. Here is a list of some of them. (Card shown to respondent.) Would you read down that list, and tell me for each one whether it is at the present time a major concern of yours, or a minor concern, or not a concern at this time, or something that doesn't apply to you?

Issue	Major concern	Minor concern	Not a concern	Doesn't apply to me	Don't know
i. Being able to pay medical bills if you or someone in the family should have a serious and prolonged illness	53%	24	18	4	1
j. Having enough money to live on when you retire	47%	28	20	3	1
h. Being able to pay ordinary medical bills	32%	31	32	5	1
a. Being able to pay for major household repairs	31%	29	25	14	1
e. Being able to pay off other debts	31%	32	29	7	1
d. Being able to pay for sending children to college	30%	16	16	37	1
c. Being able to buy a new car	20%	34	35	10	1
d. Being able to pay off what you owe on credit cards	19%	24	32	23	1
g. Being able to contribute to the support of elderly parents	17%	21	24	37	1
f. Being able to contribute to the support of adult children who need financial help	12%	20	23	43	1

## Public Opinion and Environmental Issues

What about the environment? Do Americans think enough is being spent on improving and protecting it? Since 1983, there had been a steady annual increase in the percentage of people who feel that the country is not spending enough (Tables 3 and 4). This figure had been under half since *Roper Reports* began asking the questions in 1973. In 1984 this concern about inadequate environmental spending spilled over the majority mark and increased further in 1985 and 1986. In our latest reading (December, 1987) public concern still was at the second highest level in 14 years.

How does the public feel about environmentalists? We asked people to react to 13 items, including yuppies, computerization, and consumer activist, along with environmentalist (Table 5). A little over half said that the term "environmentalist" has a favorable meaning to them. That is twice as many who consider it just a descriptive word. Only a handful said it has a negative connotation. Clearly, the term "environmentalist" is not a dirty word to most Americans.

Another indicator of public feelings about environmentalists was the question of whether or not people think environmentalists have too much influence. Environmental groups are 16th on the list of 22 groups we asked about, with only a small minority being concerned about their influence. By contrast, four in ten Americans say that these groups have too little influence—the same proportion saying it is about right (Table 6).

## Future Public Concerns

So far we have seen that the public opinion climate for health and environmental concern is hospitable. Now, what would seem to be future concerns of the American public, related to health and the environment and based on present attitudes? We have some trended information and some that is not. Future public awareness and opinion are especially hard to predict. It is difficult to extrapolate past the present public opinion trends into the future, largely because we cannot know the future events and fast-changing developments to which the public will or will not react. Public opinion projection uses some scientific procedures, but it is essentially an art.

From our survey experience we do know that if people's health and well-being are threatened, their interest in remedial action is greatly enhanced. So, the more they perceive an environmental threat to their safety and health, the more they will want regulation or industry action to meet the threat.

Let us look at some specific actual or potential environmental threats to health and try to make a rough projection of public attitudes towards them into the reasonably near future.

## Hazardous Wastes

Hazardous wastes are high on the public's anxiety list (Table 7). Whether or not we are talking about waste disposal sites or manufacturing and processing involving the use of toxic chemicals, there is likely to be contin-

Table 2. Questionnaire regarding concerns that reader feels the Federal government should attend to.

There are many problems facing our nation today. But at certain times some things are more important than others, and need more attention from our Federal Government than others. (Card shown to respondent.) I'd like to know for each of the things on this list whether you think it is something the government should be making a *major* effort on now, or something the government should be making *some* effort on now, or something not needing any particular government effort now. First trying to slow down inflation in our economy.

X half of sample	Y half of sample	Problem	June 1987				June 1986	June 1985	June 1975
			Major effort	Some effort	Needs no particular effort	Don't know	Major effort	Major effort	Major effort
i.		Trying to solve the problems of crime and drugs	78%	18	2	2	80%	80%	82%
	j.	Trying to find a cure for AIDS	74%	19	4	3	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>
	i.	Taking steps to contain the cost of health care	70%	24	4	2	70	75	<sup>a</sup>
j.		Trying to reduce unemployment	69%	24	5	2	70	77	<sup>a</sup>
	d.	Taking steps to combat terrorism	69%	24	4	3	80	78	<sup>a</sup>
	c.	Taking steps to reduce the deficit	68%	24	3	5	67	72	<sup>a</sup>
d.		Trying to seek agreements with other nations to limit nuclear weapons	66%	25	6	4	68	78	58
	h.	Trying to solve the problems of the homeless	59%	32	6	2	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>
a.	a.	Trying to slow down inflation in our economy	57%	32	8	3	54	70	83
	f.	Trying to improve the quality of our environment	56%	35	6	3	57	<sup>a</sup>	<sup>a</sup>
h.		Trying to solve the problems caused by ghettos, race, and poverty	55%	34	8	3	60	60	59
c.		Trying to improve relations between the United States and Russia	52%	36	7	5	60	61	38
	e.	Taking steps to help American business become more competitive in foreign markets	51%	34	10	5	46	52	<sup>a</sup>
f.		Trying to establish more controls to protect consumers on the products and services they buy	40%	43	14	4	38	44	62
e.		Seeking ways to protect the privacy of individuals in our society	39%	43	14	4	39	48	56
	g.	Trying to solve the nation's racial problems	38%	44	15	3	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>
b.	b.	Trying to help negotiate a peace settlement between Israel and all the Arab nations	38%	42	14	7	42	42	35
g.		Trying to establish more controls on the way products and services can be advertised	26%	45	24	5	24	30	43

<sup>a</sup>Not asked.

uing, if not increasing, public concern. We can assume that making the Title III Right-to-know Act operative will intensify public concern and even alarm in many communities across the land. Furthermore, if accidents involve toxic substances in plants, during transport on highways and railroads, or in dumps—accidents which make headlines—we can assume heightened public awareness and concern.

Let us look at the kind of environmentally threatening and health-threatening event involving an industrial accident in which pollutants are released into the air, water, or soil. Currently, one-half of the public considers this type of contamination a very serious problem. Such an accident occurred, as we all recall, in Bhopal, India, and again in Institute, WV.

Prior to these events, four in ten people thought that

living near a chemical manufacturing plant put a person at high risk. This figure (around 40%) was constant in three readings from 1978 to 1981. Then after the two accidents, our September 1985 measure moved up to 48%. In June 1986, our most recent poll of this question, this figure stood at 52%. This increase in public concern is a case in which public opinion was "riding along" with not even a "bump" over a period of years and then changed after two significant events got a heavy press play—particularly the Bhopal story, which has not been limited to short-term coverage.

## Chemical Wastes

The leakage of chemical waste into the soil was thought to be a very serious problem by two-thirds of

Table 3. Questionnaire regarding priorities in government spending.

Turning now to the business of the country. We are faced with many problems in this country, none of which can be solved easily or inexpensively. I am going to name some of these problems, and for each one I would like you to tell me whether you think we are spending too much money on it, too little money, or about the right amount. First, the space exploration program—are we spending too much, too little, or about the right amount on the space exploration program?

Area of expense	December 1987				Dec. 1986	Dec. 1985	Dec. 1984	Dec. 1983	Dec. 1982	Dec. 1977	Dec. 1973
	Too much	Too little	About right	Don't know	Answered "too much"						
l. Foreign aid	66%	6	20	8	65%	64%	61%	70%	75%	69%	76%
h. The military, armaments, and defense	42%	13	39	7	37	39	37	32	38	24	32
j. Welfare	39%	23	30	8	38	41	39	43	45	58	48
a. The space exploration program	36%	18	37	9	41	44	44	38	44	43	66
d. Solving the problems of the big cities	12%	35	34	20	12	12	9	12	12	15	10
m. Unemployment insurance benefits	12%	31	42	16	11	12	10	13	13	<sup>a</sup>	<sup>a</sup>
k. Improving public transportation	9%	29	47	15	7	9	6	8	7	7	7
b. Improving and protecting the environment	7%	54	31	7	6	8	6	7	10	12	15
l. Increasing the nation's energy supply	7%	34	44	15	6	8	6	6	7	7	4
f. Dealing with drug addiction	6%	59	29	6	6	6	4	5	5	7	5
g. Improving the nation's education system	5%	60	28	6	5	5	5	5	5	9	9
e. Halting the rising crime rate	5%	58	29	7	5	5	3	4	4	5	5
c. Improving and protecting the nation's health	4%	63	28	5	4	5	5	5	5	6	5

<sup>a</sup>Not asked.

Table 4. Questionnaire on views on level of spending for various things.

Area	December														
	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
	88-1	87-1	86-1	85-1	84-1	83-1	82-1	81-1	80-1	79-1	78-1	77-1	76-1	75-1	74-1
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Space exploration															
Too much	36	41	44	44	38	44	41	36	42	44	43	46	55	56	66
Too little	18	13	9	9	10	12	14	19	15	13	12	11	9	7	3
About right	37	38	39	41	45	37	38	33	33	32	34	33	28	28	24
Don't know/no answer	9	8	8	6	7	6	7	12	10	10	10	9	9	9	6
Improving environment															
Too much	7	6	8	6	7	10	10	14	14	13	12	12	13	11	15
Too little	54	59	56	54	48	47	48	47	45	44	49	50	48	49	45
About right	31	27	28	34	38	37	36	32	35	35	31	31	30	30	30
Don't know/no answer	7	8	7	6	6	6	7	7	6	7	8	7	9	9	9
Nation's health															
Too much	4	4	5	5	5	5	6	6	7	7	6	7	6	5	5
Too little	63	58	59	58	56	56	56	58	59	60	58	55	57	60	57
About right	28	30	29	33	33	35	33	31	29	27	28	31	29	27	32
Don't know/no answer	5	8	7	5	6	4	6	6	5	7	7	6	8	8	7
Problems of big cities															
Too much	12	12	12	9	12	12	14	19	17	19	15	18	20	10	10
Too little	35	41	43	39	38	42	43	38	38	36	42	40	37	43	42
About right	34	30	25	37	33	30	28	28	32	28	26	24	24	24	25
Don't know	20	17	20	16	17	16	15	15	13	17	18	17	19	22	22

Americans in 1986, an increase from just 2 years earlier. Other data support our assumption that, for the foreseeable future, these kinds of ecological dangers will be seen as serious by large majorities of Americans (Tables 8 and 9). Between 1981 and 1987 there was an increase in the public sentiment that soil and water pollution from chemical waste disposal would be a serious threat to future generations. One-half of the public felt that way in the latest reading.

### Local Community Concerns

We have been talking here of awareness and concern at the national level. We do have some data on public awareness in local communities (Table 10). For example, over one-third of local residents have read or heard about toxic waste problems in their own communities. Somewhat under half of these residents consider those wastes to be near enough their homes to be a threat to

**Table 5. Questionnaire regarding public's connotation of certain words.**

I want to ask you about certain words or phrases that we hear a lot these days. For each one would you tell me whether it has a favorable connotation to you, or a negative meaning to you, or is it just a descriptive term without either a favorable or unfavorable association? First, yuppie.

X half of sample	Y half of sample	Connotation of words <sup>a</sup>	Favorable	Negative	Descriptive	Don't know
		Favorable				
	d.	Technology	58%	5	31	7
i.	i.	Environmentalism	53%	11	27	9
d.		High-tech	45%	9	36	10
	e.	The media	40%	23	29	9
c.	c.	Computerization	39%	14	38	9
e.		The press	38%	25	29	7
g.	g.	Consumer activist	33%	21	29	16
		Descriptive				
b.	b.	Conglomerate	15%	26	40	19
a.	a.	Yuppie	10%	30	40	20
h.	h.	Wall Street	36%	14	39	12
j.	j.	Robotics	26%	20	34	20
		Negative				
k.	k.	Nuclear energy	30%	39	24	8
f.	f.	Religious fundamentalist	19%	39	29	14

<sup>a</sup>Note: All items except "high-tech," "technology," "the press," and "the media" evaluated by full sample.

**Table 6. Questionnaire regarding influence of special interest groups.**

We frequently hear of the influence special interest groups have in this country. (Card shown to respondent.) Please look at this list and tell me for each group whether you think it has too much influence in our society today, or too little influence, or about the right amount of influence? First, labor unions.

X half of sample <sup>a</sup>	Y half of sample	Special-interest group	January 1987				January 1985
			Too much	Too little	About right	Don't know	Too much
a.	a.	Labor unions	52%	12	29	7	57%
	l.	Gay rights groups	48%	11	26	15	<sup>b</sup>
b.	b.	Business and industry organizations	44%	8	39	8	51
j.	j.	Doctors' organizations	38%	10	40	12	44
m.		Pro-abortion groups	38%	14	33	15	37
	g.	The military	36%	12	44	9	<sup>b</sup>
	c.	Fundamentalist church groups	35%	19	35	10	<sup>b</sup>
e.		Real estate operators	31%	5	44	20	31
	m.	Left wing political groups	31%	8	30	32	<sup>b</sup>
g.		Military groups	31%	12	45	12	30
	k.	Minority rights organizations	30%	26	35	9	<sup>b</sup>
	n.	Right wing political groups	29%	6	34	32	<sup>b</sup>
n.		Anti-abortion groups	29%	23	32	16	31
l.		Women's rights organizations	22%	23	45	11	23
c.		Church groups	21%	31	44	5	22
k.		College organizations	13%	18	51	19	14
o.	o.	Environmental groups	13%	38	39	10	15
d.	d.	Consumer groups	12%	34	43	11	12
h.	h.	Veterans groups	5%	41	43	10	7
f.	f.	Farmers	5%	69	19	7	6
i.	i.	Senior citizens groups	4%	57	33	6	4
	e.	Organizations for the disabled	3%	60	30	7	<sup>b</sup>

<sup>a</sup>Note: All items except a, b, d, f, h, i, j, and o evaluated by one-half of sample.

<sup>b</sup>Not asked.

their and their family's personal health. The right-to-know legislation surely will change these levels of awareness and concern probably upward in some places and perhaps downward in others.

## Air and Water Pollution

What about air and water pollution? Our December

1987 survey shows a stronger national concern about the seriousness of industrial water than air pollution, which is at a significantly higher level (Table 11). What do people say about the communities in which they live? A bit more than half the population give only "fair" or "poor" ratings to the places where they live regarding air and water. Since 1976 there has been more of a

**Table 7. Questionnaire regarding public's prioritizing of health risks.**

We hear a lot these days about things that can be risks to people's health or safety. Here is a list of a number of them. (Card shown to respondent.) Would you read over that list, and then for each one tell me whether it is something you think involves a high degree of risk to a person, or involves a moderate risk, or involves only a minor risk? First, flying in a plane.

Health risk	June 1986				1985 Sept.	1981 April/ May	1979 April/ May	1978 Sept.
	High risk	Moderate risk	Minor risk	Don't know	High risk			
h. Smoking cigarettes	63%	25	11	1	63%	59%	61%	56%
e. Living near a nuclear power plant	58%	25	15	2	48	46	45	37
f. Living near a chemical manufacturing plant	52%	33	13	2	48	40	41	41
g. Living in an area where there is industrial air pollution	47%	40	12	2	41	38	41	43
i. Drinking alcoholic beverages	41%	39	18	2	45	34	39	34
l. Eating foods that have been sprayed with pesticides while they were growing	35%	40	22	3	42	34	34	33
d. Living in a hurricane or tornado area	29%	40	28	2	33	34	39	36
c. Living in an earthquake area	29%	37	31	3	38	34	37	34
b. Riding in an automobile	19%	46	34	—	25	21	27	25
a. Flying in a plane	17%	34	47	1	22	12	16	18
m. Taking large amounts of vitamins	17%	33	41	9	a	a	a	a
j. Eating foods with preservatives added	12%	44	39	4	15	13	15	14
k. Eating foods with artificial coloring added	10%	36	49	5	13	12	14	13

\*Not asked.

**Table 8. Questionnaire regarding public's awareness of health hazards.**

Here is a list of some things people have said are health hazards. (Card shown to respondent.) Which of those, if any, have you read or heard anything about in the past month or two? (Asked for each one answered): From what you have read or heard, how serious a problem do you think (problem named) is—very serious, somewhat serious, not very serious, or not at all serious?\*

Hazard	March 1986							March 1984	
	Heard of, %	Totally serious, %	Very serious, %	Somewhat serious	Not very serious	Not at all serious	Don't know	Heard of, %	Totally serious, %
c. Over-the-counter medicine sold in capsules that can be tampered with	95	84	65	19	9	1	1	b	b
e. Leakage of chemical waste into soil	81	78	67	11	2	1	1	78	74
a. Acid rain	74	63	40	23	5	1	5	70	59
b. Asbestos in school ceilings	73	62	40	22	7	1	3	73	60
d. The sugar substitutes Aspartame or Nutra-Sweet	70	30	13	17	22	12	6	71	30
None	2								
Don't know	—								

\*Note: Items ranked according to "very" and "somewhat serious" combined.

<sup>b</sup>Not asked.

negative trend in public assessment of local water pollution than in local air pollution.

Regarding drinking water, we have seen in our national surveys a slow, steady upward trend in purchasing bottled water as a substitute for drinking tap water. The reason people give for their purchases is their concern about the purity and safety of their tap water rather than the taste of the bottled water. This finding is consistent with press reports about the dropping water tables in some areas and the incursion of lower quality water. We would expect this concern to continue its upward trend.

While fewer people cite concern for industrial air

pollution rather than water pollution in our surveys, levels of concern about air quality are still high enough to be taken seriously (Table 12). About half the public rate industrial air pollution as being very serious. Four in ten people have told us that they can see a "serious threat to future generations" in air pollution increasing to the point where it causes serious ailments and premature deaths.

One facet of pollution is destruction of the ozone layer. We know how much more this issue has been in the press recently and how these press releases are increasing. Nearly one-half of the adults consider this ecological threat to be very serious and about half that many fear

**Table 9. Questionnaire regarding public's ranking hazards of future.**

Now here are some things that different people have said may cause extremely serious problems for future generations. (Card shown to respondent.) Would you read down that list and tell me which ones, if any, you think will be serious threats to future generations?

Problem	Jan. 1987	Jan. 1981	Jan. 1977
a. More and more nations developing the capability to conduct atomic warfare	57%	56%	49%
i. The radiation problems that will be caused by the increasing amounts of atomic wastes that must be disposed of from atomic plants	53	55	41 <sup>b</sup>
h. <sup>a</sup> Ground and water pollution from chemical waste disposal ("X" half of sample only)	53	47	
d. Increasing air pollution to the point where it causes serious ailments and premature deaths	43	39	46
b. The world population growing beyond the earth's capacity to sustain it	29	36	42
h. <sup>a</sup> Gases from aerosol cans destroying the ozone barrier with a resulting danger of cancer and other radiation effects from the sun ("Y" half of sample only)	27	23	26
g. Medical technology extending life indefinitely through replacement of major body organs (heart, kidney, liver, etc.)	24	20	25
e. Conflicts between nations over who has rights to access to resources in land under the sea (for offshore oil drilling, mining of minerals, etc.)	22	36	33
c. The increasingly widening gap between the underdeveloped nations and the developed nations	19	19	17
f. The prospect of increasing numbers of devastating earthquakes throughout the world	11	16	16
None will be (vol.)	2	2	2
Don't know	4	—	6

<sup>a</sup>Note: Item h differs on X and Y half of sample.

<sup>b</sup>Not asked.

its dangers for future generations. So, probably it is prudent not to predict a weakening of public concern about air pollution.

## Pesticides and Other Agricultural Chemicals

One finding again illustrates the effect on public opinion of a single event. In each of three readings between 1978 and 1981 about one-third of the public felt that "eating foods that have been sprayed with pesticides while they were growing" is a "high risk" practice. Then, a few months after the EDB scare in 1985 our reading was up to 42%. The next year's reading had dropped down again to its earlier level. In January 1989 we asked a different question that included the item "residue on foods eaten by humans"; around 50% of the public believe that this residue and two other agricultural chemical environmental problems are "very serious" (Table 13). These are dangerous to farm workers and consumers who use pesticides or who are exposed to water pollution from run-off pesticides and fertilizers from farms. Unless organic farming is practiced by very large farms that hold the lion's share of acreage in this country, I would not expect to see a decrease in public concern about agricultural chemicals.

## Acid Rain

What about acid rain? Public concern about it does not seem to change much. During the last 5 years, under half the public has chosen to call acid rain "one of the most serious environmental problems" (Table 13). Unless something very dramatic comes to the public's attention, I would not expect this to change in the foreseeable future. Compared with many other threats, the effects of acid rain are visible in only certain geographic areas,

and it is probably relatively subtle and undramatic to the average person.

## Nuclear-based Environmental Dangers

Finally, what are the public's feeling about nuclear-based possible environmental dangers? Two events in

**Table 10. Questionnaire regarding public's familiarity of local toxic waste problems.**

We hear a lot these days about the problem of toxic waste, that is, chemical wastes that are disposed of and can pollute the air or water and cause a health hazard in people living near the disposal sites. Have you heard about there being any toxic waste problem in your city or town?

	March 1986	March 1983
Yes	36%	29%
No	60	66
Don't know	3	5

Is this toxic waste problem located close enough so that you personally are concerned about its effects on you and your family? (Asked of those who have heard of a toxic waste problem in their city or town.)

	March 1986	March 1983
Yes	16%	12%
No	19	15
Don't know	1	2
Not asked—have not heard of toxic waste problem in their city/town or don't know	64	71

Who do you think is doing the best job of dealing with the toxic waste problem—Federal, state or local governments? (Asked of those who have heard of a toxic waste problem in their city or town.)

	March 1986	March 1983
Federal	7%	7%
State	8	7
Local	11	7
Don't know	10	9
Not asked—have not heard of toxic waste problem in their city/town or don't know	64	71

**Table 11. Questionnaire regarding prioritizing of environmental problems.**

Here are some of the things that environmentalists have said are problems for us. (Card shown to respondent.) Would you read down that list, and then tell me for each one whether you think it is one of our most serious environmental problems, or no more serious than other environmental problems, or one of our least serious environmental problems? First, strip mining of coal, iron, copper, etc.

Problem	October 1987				October/November		
	One of most serious	No more serious than others	One of least serious	Don't know	1985	1984	1983
					One of most serious		
g. Environmental contamination from chemical waste disposal	72%	19	2	6	76%	72%	78%
b. Water pollution from disposal of waste products by manufacturing plants	72%	21	2	5	75	70	75
h. Environmental contamination from nuclear waste disposal	70%	18	5	7	68	62	73
i. Radiation from nuclear power plants	57%	23	12	8	57	50	60
c. Oil spillage from tankers in the lakes, rivers, oceans	56%	32	6	6	55	48	57
e. Air pollution from industrial plants and factories	54%	36	5	5	58	51	58
f. Acid rain	47%	30	8	15	48	45	46
d. Air pollution from auto exhausts	36%	45	14	5	36	38	41
a. Strip mining of coal, iron, copper, etc.	17%	46	21	15	18	17	28

**Table 12. Questionnaire involving ranking of environmental problems.**

Here are some things that environmentalists have said are problems for us. (Card shown to respondent.) Would you read down that list and then tell me for each one how serious an environmental problem you think it is—very serious, somewhat serious, not too serious, or not at all serious? First, outdoor air pollution from factories, mills, processing plants, etc.

X half of sample	Y half of sample	Problem	Very serious	Somewhat serious	Not too serious	Not at all serious	Don't know
f.	d.	Water pollution from industrial wastes	58%	29	9	2	3
	f.	Water pollution from run-off of pesticides, herbicides, fertilizers, etc., from farms	50%	34	11	2	3
h.	k.	Contamination of drinking water as it comes from the tap (from chemicals, lead from pipes, biological contaminants, radiation, etc.)	49%	31	14	3	3
a.	a.	Outdoor air pollution from factories, mills, processing plants, etc.	48%	37	11	2	2
g.	h.	Contamination of oceans, coastal waters and estuaries from all sources except oil spills	47%	33	12	2	6
	e.	Water pollution from municipal sewage treatment plants	45%	31	16	3	6
b.	b.	Outdoor air pollution from auto, bus, and truck exhaust	38%	42	16	2	1
	j.	Accidental oil spills from tankers, drilling rigs, etc.	38%	35	20	2	4
c.		Environmental damage due to acid rain	36%	35	14	3	12
	g.	Water pollution from run-off from city streets, parking lots, construction sites, etc., containing oil, salt, chemicals	35%	38	19	4	4
i.		Problems caused by biotechnology (contamination of environment by release of genetically altered materials)	35%	31	13	3	18
	i.	Contamination and physical destruction of coastal and inland wetlands, from all sources except oil spills	35%	36	16	4	9
d.	c.	Indoor air pollution (from household and industrial cleaners and other chemicals used in home or office, tobacco smoke, aerosol sprays, asbestos, etc.)	26%	37	28	6	3
e.		Indoor air pollution from radon in homes and other buildings	21%	30	23	7	18



Table 13. Questionnaire regarding public's ranking of environmental problems.

Here are some things that environmentalists have said are problems for us. (Card shown to respondent.) Would you read down that list and then tell me for each one how serious an environmental problem you think it is—very serious, somewhat serious, not too serious, or not at all serious? First, destruction of the ozone layer over the earth, permitting strong sun's rays to get through causing skin cancer and other problems.

X half of sample	Y half of sample	Problem	Very serious	Somewhat serious	Not too serious	Not at all serious	Don't know
c.	c.	Hazardous waste sites in active use	62%	29	5	1	4
d.	d.	Abandoned hazardous waste sites that have not been cleaned up of the type commonly addressed by Superfund	61%	28	5	1	5
j.		Worker exposure to toxic chemicals	60%	29	5	1	4
	e.	Radiation from a nuclear power plant accident	58%	27	11	2	2
	f.	Radiation from radioactive wastes	55%	31	8	2	3
f.		Underground storage tanks leaking gasoline and other substances	54%	32	9	1	4
i.		Pesticides harming farmers, farm workers, and consumers who work with them	54%	30	10	1	5
h.	j.	Pesticide residue on foods eaten by humans	52%	34	10	2	3
g.	i.	Industrial accidents releasing pollutants into air, water, or soil	51%	37	8	1	3
a.	a.	Destruction of the ozone layer over the earth, permitting strong sun's rays to get through, causing skin cancer and other problems	47%	34	10	1	8
e.		Nonhazardous waste sites such as trash disposal from households and industry	33%	39	22	3	4
b.	b.	The greenhouse effect—an accumulation of certain gases in the atmosphere that will cause the temperature on earth to rise	33%	37	15	2	12
	g.	Radiation from X-rays	22%	31	34	8	4
	h.	Radiation from microwave ovens	14%	19	41	20	6

nuclear plant history increased public anxiety about living near a nuclear power plant. The percentage calling nuclear pollution a "high risk" immediately after Three Mile Island in March 1979, jumped 8 points from the reading about 6 months earlier. Then, the September 1985 the reading of high risk concern increased by 10 points in the June 1986 survey, which was polled a few weeks after the Chernobyl disaster. These survey readings demonstrate the potential volatility of public opinion and the practical difficulties in projecting it into the future, even the short-term future.

Nuclear waste disposal and the dangers of radiation are currently at the same level of public concern as those that exist for nuclear accident radiation. A little over half of the adult population in both 1981 and 1987 believed that a serious threat to future generations is radiation that will be caused by increasing amounts of nuclear wastes that need to be disposed of.

## Summary

From our emphasis on the relative degree of public

concerns about the environment, one could come away from this review with the impression that Americans spend a lot of time worrying about different kinds of environmental threats. While we have seen that varying levels of anxiety or concern about environmental factors exist, these concerns should be put in the context of other issues that impinge on our lives.

Very briefly, our surveys show that currently problems like AIDS, crime and lawlessness, and drug abuse head the list of things that people are personally concerned about. A few years ago a recession and rising unemployment were worrisome to the public. Before that it was the fuel and energy crisis. Air and water pollution has never been very high on the list of personal concerns, which is understandable when compared with some more dramatic and personally threatening items on the list.

I would like to close with our recent finding that, right or wrong, more Americans than 5 years ago think that public opinion can have "a lot" of effect on environmental protection in this country. I hope they are right.